



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,008	09/08/2005	Reiner Kober	0690-0122PUS1	1751

2292 7590 03/05/2010  
BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
----------

HOLT, ANDRIAE M

ART UNIT	PAPER NUMBER
----------	--------------

1616

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

03/05/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,008	<b>Applicant(s)</b> KOBER ET AL.	
	<b>Examiner</b> Andriae M. Holt	<b>Art Unit</b> 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-37 is/are pending in the application.
- 4a) Of the above claim(s) 22-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-21 and 27-37 is/are rejected.
- 7) ☒ Claim(s) 22-26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 11, 2009 has been entered.

Claims 1-10 and 12-37 are pending in the application. Claims 6, 7, 9, 10, 15, 16, 18, and 19-21 have been amended. Claims 22-26 have been withdrawn in a previous Office Action. Claims 27-37 are newly added. Claims 1-10, 12-21, and 27-37 will presently be examined to the extent they read on the elected subject matter of record.

### ***Claim Objections***

Claims 22-26 are objected to because of the following informalities: The claims have improper identifiers. The claim identifier should be "Withdrawn". Appropriate correction is required.

### ***Status of the Claims***

The rejection of claims 1-10 and 12-21 under 35 U.S.C. 103 (a) as being unpatentable over Scholz et al. (CA 2,338,988) in view of Valcke et al. (US 5,714,507) and Rehnig et al. (US 5,968,964) **is maintained**.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

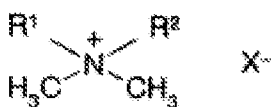
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10, 12-21, and 27-37 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Scholz et al. (CA 2,338,988) in view of Valcke et al. (US 5,714,507) and Rehnig et al. (US 5,968,964).

***Applicant's Invention***

Applicant claims a composition comprising a1) at least one active ingredient selected from among the pesticidally active triazole class; a2) at least one active

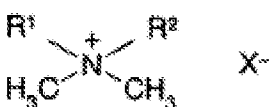


ingredient of the formula (III) ;

b) at least one straight-chain or branched saturated or unsaturated aliphatic carboxylic acid and d) water. Applicant further claims a composition further comprising component c1) alkylglycosides.

***Determination of the scope of the content of the prior art  
(MPEP 2141.01)***

Scholz et al. teach that the objective of the invention is to provide stable homogeneous active compound concentrates on an aqueous base which have a very high proportion of active compound and which contain an activity-enhancing proportion of additives (col. 4, lines 32-37). Scholz et al. teach the objective is achieved by providing aqueous, active-compound-containing compositions in the form of active compound concentrates having an active compound concentration of at least 20%(component a1 less than 35% by weight, instant invention). Scholz et al. teach the concentrates compound comprise a) at least one active compound of formula



I (component a2, mepiquat chloride, instant invention) and b1) alkylglycosides (compound c, surface active adjuvant, alkylglycosides, instant invention). Scholz et al. teach that the formulations are advantageous from an ecological point of view; since the alkylglycosides are additives which are prepared from renewable raw materials (sugars) (page 7, lines 14-17). Scholz et al. teach that the preferred compound of formula I is N,N-dimethylpiperidinium chloride, mepiquat chloride (mepiquat chloride, instant invention (page 12, lines 36-38).

Art Unit: 1616

Scholz et al. teach the compositions also contain one or more of the following additives a) up to 30% of anionic, cationic or nonionic surfactants, c) up to 30% in particular up to 20%, of straight-chain or branched C3-C12-alkylcarboxylic acids, C3-C12-di-or tricarboxylic acids, such as propionic acid (component b, propionic acid, less than 70% by weight, less than 50% or less than 40% by weight, instant invention). Scholz et al. teach that the composition further contains component d) up to 40%, in particular up to 25% of other active compounds from the field of crop protection, including fungicides (page 11, lines 17-20) (a1, active ingredient up to 40%). Scholz et al. further teach the concentration of the active compound is 5-40% in the finished formulation (page 12, lines 32-34). Scholz et al. teach that the compositions contain 20-40% water based on the total weight of the formulation (component d, water, more than 10% of the composition, instant invention).

***Ascertainment of the difference between the prior art and the claims  
(MPEP 2141.02)***

Scholz et al. do not teach the active ingredient is among the pesticidally active triazole class, particularly metconazole, or the molar ratio of component (b) to component (a1) is greater than 4. It is for this reason Valcke et al. and Rehnig et al. are added as secondary references.

Valcke et al. teach synergistic fungicidal compositions containing a fungicidal triazole and metconazole for treating plants or the loci of plants (Abstract). Valcke et al. teach that the active ingredients (I) and (II) may be present in base or in salt form, the

Art Unit: 1616

latter being obtained by reaction of the base form with an appropriate acid. Valcke et al. teach appropriate acids comprise, for example, inorganic acids, or organic acids, such as acetic and propionic acid. Valcke et al. teach the salts are generally most suitable for preparing compositions for use as agrochemicals. Valcke et al. teach the synergistic mixtures according to the present invention are most useful to combat fungi or prevent the growth thereof in plants or the loci. Valcke et al. teach that apart from the active ingredients of formula (I) and (II), the compositions may further contain other active ingredients such as plant growth regulators (col. 11, lines 5-10). Valcke et al. teach in example 7, a composition comprising metconazole 3%, water 19%, and propionic acid 6%.

Rehnig et al. teach a liquid fungicidal composition comprising (a) a fungicidally acceptable carrier comprising a mixture of 1-pentanol and 2-methylbutanol, wherein the ratio (by weight) of the 1-pentanol to 2-methylbutanol is from 1:1 to 1:10; (b) at least one compound of formula; (c) a solubilizing agent; and (d) optionally other formulation adjuvants (Abstract). Rehnig et al. teach that preferred metconazole (pesticidally active triazole, metaconazole) is the preferred azole (col. 2, lines 1-36). Rehnig et al. teach the compound of formula I is capable of forming salts or addition products with inorganic or organic acids or metal ions. Rehnig et al. teach suitable organic acids are formic acid and alkanoic acids such as acetic acid, trifluoroacetic acid, trichloroacetic acid and propionic acid (carboxylic acid, propionic acid), and additionally glycolic acid, lactic acid, succinic acid, citric acid, and benzoic acid. Rehnig et al. teach the compositions are

Art Unit: 1616

used to control phytopathogenic fungi which comprise the application of the liquid formulation of the invention or a spray mix obtained from the liquid formulation.

***Finding of prima facie obviousness  
Rationale and Motivation (MPEP 2142-2143)***

It would have been obvious to one of ordinary skill in the art to combine the teachings of Scholz et al., Valcke et al., and Rehnig et al. and use a pesticidally active triazole compound, particularly metconazole, in the formulations. It would have been obvious to the skilled artisan to add a triazole compound, such as metconazole, since it is an effective fungicide that combats fungi as evidenced by the teachings of Valcke et al. and Rehnig et al. In addition, Valcke et al. and Rehnig et al. teach that salt forms of metconazole compounds are useful as agrochemicals.

Scholz et al. teach the formation of stable homogeneous active compound concentrates on an aqueous base which have a very high proportion of active compound and which contain an activity-enhancing proportion of additives, including mepiquat chloride, propionic acid, and alkylglycosides. As such, one skilled in the art at the time the invention was made would have been motivated to use a fungicide as the active agent because Scholz et al. teach that active compounds including fungicides can be added to the compositions.

Therefore, the claimed invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made because every element of the invention has been fairly suggested by the cited references.



### ***Response to Arguments***

Applicant's arguments filed December 11, 2009 have been fully considered but they are not persuasive. Applicant argues that the proposal of salt formation of triazoles with carboxylic acid in Rehnig or Valcke is hypothetical. Applicant argues the references provide no working examples. Applicant argues that Rehnig et al. mentions water, but provides no working examples with significant amounts of water. Applicant also argues Rehnig provides no working examples of metconazole and an organic acid.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Valcke et al. and Rehnig et al. were joined as secondary references with Scholz et al. to teach the use of a triazole compound with a carboxylic acid. Scholz et al. teach that all of the components of Applicant's composition may be combined in a formulation to form stable homogeneous active compound concentrates on an aqueous base which have a very high proportion of active compound and which contain an activity-enhancing proportion of additives. While Scholz et al. do not specifically teach the use of triazole compounds as the active agents, the reference does teach that fungicides can be used in the compositions. As stated in the previous Office Action, it would have been obvious to the skilled artisan to add a triazole compound, such as metconazole, as the fungicidal component since it is an effective fungicide that combats fungi as evidenced by the teachings of Valcke et al. and Rehnig et al. In addition, Valcke et al.

Art Unit: 1616

and Rehnig et al. teach that salt forms of metconazole compounds are useful as agrochemicals. Whether the salt formation of triazoles with carboxylic acid is hypothetical or not, Rehnig teaches in col. 2, lines 39-41, that the compound of formula I is capable of forming salts or addition products with organic acids. Rehnig further teaches suitable organic acids include propionic acid. As such, based on this teaching the skilled artisan would find this salt formation possible and find it obvious to try this combination.

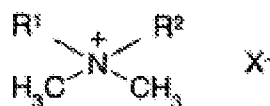
In addition, Valcke et al. provides a wood preservative composition that comprises metconazole and propionic acid. Applicant argues that the skilled artisan would not find it obvious to use a wood preservative as a plant protection agent. In response to Applicant's argument, Applicant's formulation is a composition. Valcke et al. teach a composition comprising a triazole component, metconazole and propionic acid. The intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Valcke et al. teach that additional components, such as plant growth regulators can be added to the formulations. Therefore, the skilled artisan would find it obvious to combine the teachings of the cited references because Scholz et al. teach that all of the components of Applicant's composition may be combined in a formulation to form stable homogeneous active compound concentrates on an aqueous base which have a very high proportion of active compound and which contain an activity-enhancing proportion of additives and that fungicides can be added

Art Unit: 1616

to the composition. In addition, the secondary references teach the use of triazole compounds, particularly, metconazole with organic acids such as propionic acid. Absent evidence of unexpected results, these combinations would be *prima facie* obvious.

In reviewing Applicant's data on pages 32-34 of the specification, the examiner could not determine the compositions of active ingredients S1 and S2. While Applicant may have convincing data, in table 3 on page 34, the makeup of the comparative active ingredients, S1 and S2 is unknown and a fair comparison with the inventive active ingredients, F1-F4, cannot be made. The results are inconclusive.

In addition, Applicant's data is not commensurate in scope with Applicant's claimed invention. Applicant's claims are directed to a composition comprising a1) at least one active ingredient selected from among the pesticidally active triazole class;



a2) at least one active ingredient of the formula (III) ;

b) at least one straight-chain or branched saturated or unsaturated aliphatic carboxylic acid and d) water. Applicant provides data for compositions comprising metconazole, mepiquat –chloride, and propionic acid. Metconazole represents a single species of pesticidally active triazole compounds, mepiquat-chloride represents a single species of compounds of formula (III), and propionic acid represents a single species of straight-chain or branched, saturated or unsaturated, aliphatic carboxylic acid compounds. Therefore, the examiner cannot determine based on the data provided if the results of combination of metconazole, mepiquat –chloride, and propionic acid is

Art Unit: 1616

reflective of all of possible the combinations of components a1), a2), and b), known and unknown. Evidence of nonobviousness must be commensurate in scope with that of the claimed subject matter. Here, components a1), a2), and b) are broadly defined in claim 1 and in many dependent claims. Plainly, synergy has not been established when all the possible active agents, a1), a2), and b) are taken into account. It cannot be predicted how all these active agents will combine to produce synergistic, merely additive, or even less than additive (i.e. non-synergistic) results. Applicant has clearly not established nonobvious evidence that is commensurate in scope with that of the claimed subject matter.

None of the claims are allowed.

### ***Conclusion***

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 1616

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andriae M. Holt whose telephone number is 571-272-9328. The examiner can normally be reached on 9:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Andriae M. Holt  
Patent Examiner  
Art Unit 1616

/John Pak/  
Primary Examiner, Art Unit 1616